Listing of Claims:

1. (previously presented)   A system for providing automated distributed provisioning satellite resources in a satellite communication network comprising:

at least one satellite, said satellite comprising a plurality of antenna elements for receiving transmissions from geographically distinct cells, a plurality of demodulators each adapted to demodulate signals in a particular frequency band, a switch matrix for connecting said antenna elements to said demodulators, and a payload processor for configuring said switch matrix to configure said satellite resources as a payload configuration, wherein said resources comprise a plurality of channels for transmitting information to or from said satellite;

a satellite resource allocation plan, comprising information related to the payload configuration over time and an allocation of satellite capacity pools amongst a plurality of remote network operators at geographically distributed locations;

a capacity management unit having a plurality of network interfaces displayed to and accessible by the remote network operators, wherein the capacity management unit is adapted to automatically (i) receive via the network interfaces a capacity allocation plan from any one of the remote network operators requesting a capacity allocation within one or more capacity pools allocated to said one network operator, (ii) to determine whether said capacity allocation plan can be fulfilled based on a plurality of system constraints including the satellite resource allocation plan, (iii) to update the satellite resource allocation plan based on results of the determination, and to send commands to said payload processor in order to modify the payload configuration to satisfy the capacity allocation plan.

2. (previously presented)   A system for provisioning satellite resources as in claim 1, wherein said plurality of network interfaces are accessed over a local area network.

3. (previously presented)   A system for provisioning satellite resources as in claim 1, wherein said plurality of network interfaces are accessed over a wide area network.

4. (previously presented)   A system for provisioning satellite resources as in claim 1, wherein said plurality of system constraints further includes the number of antenna elements on board said satellite.

5. (previously presented)   A system for provisioning satellite resources as in claim 1, wherein said plurality of system constraints further includes the number of demodulators on board said satellite.

6. (previously presented)   A system for provisioning satellite resources as in claim 1, wherein said plurality of system constraints further includes the switch matrix.

7. (previously presented)   A system for provisioning satellite resources as in claim 1, further comprising a primary network interface adapted to allow a network engineer to access the capacity management unit and further modify the satellite resource allocation plan and the payload configuration.

8. (previously presented)   A system for provisioning satellite resources as in claim 3, wherein said wide area network includes a secure connection over the Internet.

9. (previously presented)   A system for provisioning satellite resources as in claim 1 wherein the satellite further comprises a payload processor, and said payload processor is adapted to configure said switch matrix over a period of time based on said resource allocation plan.

10. (previously presented)   The system of claim 9, wherein said capacity management unit is further adapted to determine, for said capacity allocation plan,

which geographic cells are associated with the capacity allocation plan,

whether there is an available frequency band within each such associated cell to fulfill the capacity allocation plan,

whether a demodulators are available to demodulate each available frequency band, and

whether said switch matrix is capable of connecting an antenna element associated with each associated cell with each available demodulator.

11-14. (canceled)

15. (previously presented)   A method of automatically allocating satellite resources in a satellite communications system having at least one satellite, said satellite having a plurality of demodulators for demodulating signals received in certain frequency bands, and further having a plurality of antenna elements for receiving signals from distinct geographic cells, and further having a switching matrix for associating antenna elements with demodulators, the method comprising the steps of:

receiving via a plurality of network interfaces, and at a capacity management unit of the satellite communications system, a capacity allocation plan from one of a plurality of remote network operators at geographically distributed locations, said capacity allocation plan being received via the network interfaces displayed to the plurality of remote network operators and used for requesting a capacity allocation within one or more capacity pools allocated to said one network operator;

automatically determining, based on a plurality of system constraints, whether said capacity allocation plan can be satisfied;

automatically modifying a satellite resource allocation plan based on results of the determining step; and

automatically transmitting commands to said satellite to reconfigure a payload configuration of the satellite in order to be capable of fulfilling the modified satellite resource allocation plan.

16. (previously presented)   The method of claim 15, wherein said determining step further comprises the steps of:

for said capacity allocation plan, determining which of said geographic cells are associated with the capacity allocation plan;

determining whether there is an available frequency band within each such associated cell to fulfill the capacity allocation plan;

determining whether demodulators are available to demodulate each available frequency band; and

determining whether said switch matrix is capable of connecting an antenna element associated with each associated cell with each available demodulator.

17. (previously presented)   The method of claim 15, wherein the plurality of system constraints comprises a satellite resource allocation plan including information regarding a payload configuration and an allocation of satellite capacity pools amongst the plurality of remote network operators.

18. (previously presented)   The method of claim 15,

wherein said plurality of system constraints comprises the number of antenna elements on the satellite.

19. (previously presented)   The method of claim 15, wherein

wherein the plurality of system constraints comprises the number of demodulators on the satellite.

20. (previously presented)   The method of claim 15, wherein

plurality of system constraints comprises the switch matrix.

21-26. (canceled)

27. (previously presented)   The method of claim 15, wherein the satellite resource allocation plan comprises information related to the payload configuration over time and an allocation of satellite capacity pools amongst the plurality of remote network operators at geographically distributed locations.

28. (previously presented)   The   method   of   claim   15,   wherein   the   payload configuration comprises a configuration of connections, through the switching matrix, between the plurality of antenna elements and the plurality of demodulators.

29. (previously presented)   The method of claim 15, further comprising the step of accessing the capacity management unit through a primary network interface and further modifying the satellite resource allocation plan and the payload configuration.

30. (previously presented)   The system of claim 1, wherein network interface provides an area for displaying and selecting features related to the requested capacity allocation.

31. (previously presented)   The system of claim 30, wherein the features relate to a data rate, a time scale, a start time and an end time, a mapping of cells in a coverage area, and a capacity allocation of a particular cell.

32. (previously presented)   The method of claim 15, further comprising selecting and displaying via the network interface features related to the requested capacity allocation.

33. (previously presented)   The method of claim 32, wherein the features relate to a data rate, a time scale, a start time and an end time, a mapping of cells in a coverage area, and a capacity allocation of a particular cell.